

# THIR UNITED STRATES OF AMERICA

TO ALL TO WHOM THESE; PRESENTS; SHALL COME;

Busch Agriculturul Resources, IIC

## Secretary of Agriculture

AN APPLICATION REQUESTING A CERTIFICATE OF PROTECTION FOR AN ALLEGED DISTINCT VARIETY OF SEXUALLY REPRODUCED, OR TUBER PROPAGATED PLANT, THE NAME AND DESCRIPTION OF WHICH ARE CONTAINED IN THE APPLICATION AND EXPIBITS, A COPY OF WHICH IS HEREUNTO ANNEXED AND MADE A PART HEREOF, AND THE VARIOUS REQUIREMENTS OF LAW IN SUCH CASES MADE AND PROVIDED HAVE BEEN COMPLIED WITH, AND THE THE PHERETO IS, FROM THE RECORDS OF THE PLANT VARIETY PROTECTION OFFICE, IN THE APPLICANT(S) INDICATED IN THE SAID COPY, AND WHEREAS, UPON DUE EXAMINATION MADE, THE SAID APPLICANT(S) IS (ARE) ADJUDGED TO BE ENTITLED TO A CERTIFICATE OF PLANT VARIETY PROTECTION UNDER THE LAW.

NOW, THEREFORE, THIS CERTIFICATE OF PLANT VARIETY PROTECTION IS TO GRANT UNTO THE SAID APPLICANT(S) AND THE SUCCESSORS, HEIRS OR ASSIGNS OF THE SAID APPLICANT(S) FOR THE TERM OF TWENTY YEARS FROM THE DATE OF THIS GRANT, SUBJECT TO THE PAYMENT OF THE REQUIRED FEES AND PERIODIC REPLENISHMENT OF VIABLE BASIC SEED OF THE VARIETY IN A PUBLIC REPOSITORY AS PROVIDED BY LAW, THE RIGHT TO EXCLUDE OTHERS FROM SELLING THE WARRETY, OR OFFERING IT FOR SALE, OR REPRODUCING IT, OR PORTING IT, OR EXPORTING IT, OR CONDITIONING IT FOR PROPAGATION, OR STOCKING IT FOR ANY OF THE WE PURPOSES, OR USING IT IN PRODUCING A HYBRID OR DIFFERENT VARIETY THEREFROM, TO THE EXTENT ped by the Plant Variety Protection Act. (84 stat. 1542, as amended, 7 u.s.c. 2321 et seo.)

#### BARLEY

'Celebration'

In Jestimonn Marrest, I have hereunto set my hand and caused the seal of the Plant Anciety Frotestion Office to be affixed at the City of Washington, D.C. this ninth day of December, in the year two thousand and eight.

Plant Variety Protection Office Agricultural Marketing Servic

Colmonel T. Mary of Agriculture

GENERAL INSTRUCTIONS: To be effectively filed with the Plant Variety Protection Office (PVPO), ALL of the following items must be received in the PVPO: (1) Completed application form signed by the owner; (2) completed exhibits A, B, C, E, F; (3) for a tuber reproduced variety, verification that a viable (in the sense that it will reproduce an entire plant) tissue culture will be deposited and maintained in an approved public repository; and (4) payment by credit card or check drawn on a U.S. bank for \$4,382 (\$518 filing fee and \$3,864 examination fee), payable to "Treasurer of the United States" (See Section 97.6 of the Regulations and Rules of Practice). NEW: With the application for a seed reproduced variety or by direct deposit soon after filing, the applicant must provide at least 3,000 viable untreated seeds of the variety per se, and for a hybrid variety at least 3,000 untreated seeds of each line necessary to reproduce the variety. Partial applications will be held in the PVPO for not more than 90 days; then returned to the applicant as un-filed. Mail application and other requirements to Plant Variety Protection Office, AMS, USDA, Room 401, NAL Building, 10301 Baltimore Avenue, Beltsville, MD 20705-2351. Retain one copy for your files. All items on the face of the application are self explanatory unless noted below. Corrections on the application form and exhibits must be initiated and dated. DO NOT use masking materials to make corrections. If a certificate is allowed, you will be requested to send a payment by credit card or check payable to "Treasurer of the United States" in the amount of \$768 for issuance of the certificate. Certificates will be issued to owner, not licensee or agent.

**NOTES:** It is the responsibility of the applicant/owner to keep the PVPO informed of any changes of address or change of ownership or assignment or owner's representative during the life of the application/certificate. The fees for filing a change of address; owner's representative; ownership or assignment; or any modification of owner's name is specified in Section 97.175 of the regulations. (See Section 101 of the Act, and Sections 97.130, 97.131, 97.175(h) of the Regulations and Rules of Practice.)

Plant Variety Protection Office

Telephone: (301) 504-5518

FAX: (301) 504-5291

General E-mail: PVPOmail@usda.gov

Homepage: http://www.ams.usda.gov/science/pvpo/PVPindex.htm

#### SPECIFIC INSTRUCTIONS:

To avoid conflict with other variety names in use, the applicant must check the appropriate recognized authority and provide evidence that the permanent name of the application variety (even if it is a parental, inbred line) has been cleared by the appropriate recognized authority before the Certificate of Protection is issued. For example, for agricultural and vegetable crops, contact: U.S. Department of Agriculture, Agricultural Marketing Service, Livestock and Seed Programs, Seed Regulatory and Testing Branch, 801 Summit Crossing Place, Suite C, Gastonia, North Carolina 28054-2193 Telephone: (704) 810-8870. http://www.ams.usda.gov/lsg/seed.htm.

### ITEM

- 19a. Give: (1) the genealogy, including public and commercial varieties, lines, or clones used, and the breeding method;
  - (2) the details of subsequent stages of selection and multiplication;
  - (3) evidence of uniformity and stability; and
  - (4) the type and frequency of variants during reproduction and multiplication and state how these variants may be identified
- 19b. Give a summary of the variety's distinctness. Clearly state how this application variety may be distinguished from all other varieties in the same crop. If the new variety is most similar to one variety or a group of related varieties:
  - (1) identify these varieties and state all differences objectively;
  - (2) attach replicated statistical data for characters expressed numerically and demonstrate that these are clear differences; and
  - (3) submit, if helpful, seed and plant specimens or photographs (prints) of seed and plant comparisons which clearly indicate distinctness.
- 19c. Exhibit C forms are available from the PVPO Office for most crops; specify crop kind. Fill in Exhibit C (Objective Description of Variety) form as completely as possible to describe your variety.
- 19d. Optional additional characteristics and/or photographs. Describe any additional characteristics that cannot be accurately conveyed in Exhibit C. Use comparative varieties as is necessary to reveal more accurately the characteristics that are difficult to describe, such as plant habit, plant color, disease resistance, etc.
- 19e. Section 52(5) of the Act requires applicants to furnish a statement of the basis of the applicant's ownership. An Exhibit E form is available from the PVPO.
- 20. If "Yes" is specified (seed of this variety be sold by variety name only, as a class of certified seed), the applicant MAY NOT reverse this affirmative decision after the variety has been sold and so labeled, the decision published, or the certificate issued. However, if "No" has been specified, the applicant may change the choice. (See Regulations and Rules of Practice, Section 97.103).
- 23. See Sections 41, 42, and 43 of the Act and Section 97.5 of the regulations for eligibility requirements.
- 24. See Section 55 of the Act for instructions on claiming the benefit of an earlier filing date.
- 22. CONTINUED FROM FRONT (Please provide a statement as to the limitation and sequence of generations that may be certified.)
- 23. CONTINUED FROM FRONT (Please provide the date of first sale, disposition, transfer, or use for each country and the circumstances, if the variety (including any harvested material) or a hybrid produced from this variety has been sold, disposed of, transferred, or used in the U.S. or other countries.)
- 24. CONTINUED FROM FRONT (Please give the country, date of filing or issuance, and assigned reference number, if the variety or any component of the variety is protected by intellectual property right (Plant Breeder's Right or Patent).)

According to the Paperwork Reduction Act of 1995, an agency may not conduct or sponsor, and a person is not required to respond to a collection of information unless it displays a valid OMB control number. The valid OMB control number for this information collection is 0581-0055. The time required to complete this information collection is estimated to average 1.4 hours per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information.

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To file a complaint of discrimination, write to USDA, Director, Office of Civil Rights, 1400 Independence Avenue, S.W., Washington, D.C. 20250-9410, or call (800) 795-3272 (voice) or (202) 720-6382 (TDD). USDA is an equal opportunity provider and employer.

## ORIGIN AND BREEDING HISTORY OF CELEBRATION (6B01-2218)

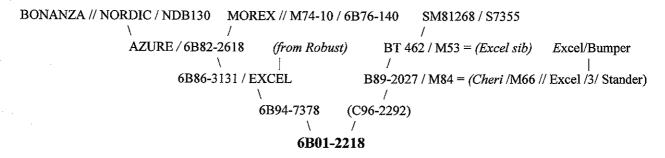
PEDIGREE: B7378 // B2027 / M84

**Date of Cross:** 

1998

### **HISTORY:**

**BREEDING HISTORY:** The line 6B01-2218 was derived from the three-way cross (C98-2052) made in fall of 1998 in Ft. Collins, CO between 6B94-7378 as female and the F1 hybrid (C96-2292) used as male. The female parent (6B94-7378) is a BARI breeding line with a pedigree of 6B86-3131 / Excel. The male parent (C96-2292) is from a cross between the released line B2027 and M84 from the University of Minnesota. **Based on the extended pedigree of 6B01-2218, which is shown below, it is expected that 6B01-2218 has inherited ~ 37.5% of its genes by descent from the variety Excel.** 



The F<sub>1</sub> generation of 6B01-2218 was increased in the greenhouse in the fall/winter of 1998/99 and subsequently planted as an F<sub>2</sub> population in Moorhead, MN in 1999. The F<sub>3</sub> generation was grown as a single seed descent (SSD cycle of ~ 98 seed) in the greenhouse in the fall of 1999 and returned to Langdon, ND in 2000 as ninety-five (95) individual F<sub>4</sub> rows. Row #4660 was 1 of 7 such rows selected from this cross on the basis of visual appearance and whole grain NIR scores for protein, predicted extract, blight, etc. and increased as an F<sub>5</sub> plot (AZ 0343) in a counterseason nursery in Yuma, AZ during the fall/winter of 2000/01. The designation 6B01-2218 was assigned to this experimental line and subsequently tested in replicated yield trials, mostly in North Dakota from 2001-2005. 6B01-2218 was entered in regional trials (MVT and WRSBN) in 2003-2005. In 2004, ~250 heads were selected from a pure seed plot at the  $F_{5:10}$  stage (03FC-PS source) and ~ 185 were planted in Ft. Collins as head-rows in 2005, with 64 being selected and harvested on visual uniformity. Sixty of these were grown as F<sub>11:12</sub> progeny plots at Ft. Collins in 2006. Eighteen plots were selected on visual uniformity and planted separately as strips in Ft Collins in the summer of 2007. Thirteen of the 18 strips were selected, uniform and true to type. The uniform plots were bulked together, at harvest, to create breeders seed with a 1.0+ acre increase in Arizona during the fall/winter of 2007/2008. 6B01-2218 has been uniform and stable from F9 through F12. Less than .05% of the plants were rogued from fields in 2008. Approximately 95% of the rogued plants were 2 to 4 centimeters taller than 6B01-2218. Less than .05% total variant plants may be encountered in subsequent generations. This will provide adequate seed for 20+ acres of Foundation in 2008 and drive subsequent plant scale evaluations as early as the 2009 and 2010 crop years. Certified seed should be produced in 2010.

#200800311
From the first year of yield testing through the release of the variety, continual assessments of numerous agronomic and malting traits are carried out. These traits are assessed on samples grown at several locations per year and statistically compared to the most widely grown commercial varieties, plus selected advanced experimental lines. The varieties Legacy and Robust were used throughout the testing of 6B01-2218. The following criteria are assessed at each stage of yield trial testing:

### Agronomic traits:

### Malting traits:

Yield Kernel plumpness Straw strength (lodging) Extract Level Height Total protein Maturity Soluble protein Test weight Alpha amylase Resistance to scald Diastatic power Resistance to net blotch Wort viscosity Resistance to spot blotch **Turbidity** 

Our most important agronomic traits are yield, straw strength and disease resistance. Our most important malting traits are extract level, protein and enzyme levels (alpha amylase and diastatic power).

### **EXHIBIT B**

### STATEMENT OF DISTINCTNESS

#200800311

- 6B01-2218 is most similar to the spring barley variety "Legacy"; however it can be distinguished by the following morphological characteristics:
- 6B01-2218 has a bowl shaped collar that forms a V-shape in the front. Legacy has a saucer shaped collar.
- 6B01-2218 base of the first segment is a margin flange with no hairs on the margin. Legacy base of the first segment is a margin flange with hairs on the margin.
- 6B01-2218 has short rachilla hairs Legacy has long rachilla hairs.
- 6B01-2218 has a mid-lax head. Legacy has a lax head.
- 6B01-2218 glumes are sparsely covered with short hairs. Legacy has long glume hairs confined to a band.
- 6B01-2218 rachis shape is plain with short hairs on the margin. Legacy rachis shape is plain with long hairs on the margin.

According to the Paperwork Reduction Act of 1995, an agency may not conduct or sponsor, and a person is not required to respond to a collection of information unless it displays a valid OMB control number. The valid OMB control number for this information collection is 9581-9055. The time required to complete this information collection is estimated to average 1.5 hours per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information.

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U.S. DEPARTMENT OF AGRICULTURE AGRICULTURAL MARKETING SERVICE SCIENCE AND TECHNOLOGY PLANT VARIETY PROTECTION OFFICE BELTSVILLE, MD 20705

# OBJECTIVE DESCRIPTION OF VARIETY Barley (Hordeym vulgare I.)

•	Barley (Hordeum vulga	re L.)
NAME OF APPLICANT (S) Busch Agricultural Resources, LLC	TEMPORARY OR EXPERIMENTAL DESIGNATION 6B01-2218	variety NAME Celebration
ADDRESS (Street and No. or RD No., City, State, Zlp Code, and C 3515 Richards Lake Road Ft. Collins, Colorado 805	FOR OFFICIAL USE ONLY  PVPO NUMBER	
		#200800311
PLEASE READ ALL INSTRUCTIONS CAREFULLY	<b>':</b>	
Place the appropriate number that describes the vari- when the number is either 99 or less or 9 or less.	etal character of this variety in the boxes be	elow. Place a zero in the first box (i.e. 0 9 9 or 0 9 )
1. GROWTH HABIT:		
1 = Spring 2 = Facultative Winter 3 =	= Winter Early Growth: 3	1 = Prostrate 2 = Semi-Prostrate 3 = Erect
2. MATURITY: (50% Flowering)		•
2 1 = Farty (California Mariout) 2 = Mic	d-Season (Betzes) 3 = Late (Frontier)	
0 0 1	•	
Same as Check  No. of Days Later Than	*	
3. PLANT: (From Soil Level to Top of Head)		
1 = Semi-Dwarf 2 = Short (Californ	nia Mariout) 3 Medium Tall (Be	etzes) 4 = Tall (Conquest)
4 cm Shorter Than <u>LEGACY</u>	*	
Same as Check	*	
cm Taller Than	*	
4. STEM:		
2 Exsertion (Flag to Spike at Maturity): 1 =	= (0-3  cm) $2 = (3-10  cm)$ $3 = ($	(10 – 15 cm)
1 Anthocyanin: 1 = Absent 2 =	- Present	
0 5 No. of Nodes (Originating from Node Ab	ove Ground)	
5 Collar Shape: 1 = Closed 2 =	: V-Shaped 3 = Open 4 = N	Modified Closed or Open 5 = Cupped collar tha forms a V-shape
Shape of Neck: 1 = Straight 2 =	Snaky 3 = Other (Specify)	forms a V-shape

<sup>\*</sup> A commercial variety grown in the same trial.

5. LEAF: #200800311 2 Basal Leaf Sheath (Seedling): 1 = Glabrous 2 = Pubescent 2 Position of Flag Leaf (At Boot Stage): 1 = Drooping 2 = Upright Waxiness: 1 = Absent (Glossy) 2 = Slightly Waxy 3 = Waxy mm Width (First Leaf Below Flag Leaf) cm Length (First Leaf Below Flag Leaf) Anthocyanin in Leaf Sheath: 1 = Absent 2 = Present 6. HEAD: 2 Type: 1 = Two-Rowed 2 = Six-Rowed 4 4 = Other (Specity) MID-LAX Density: 1 = Lax 2 = Erect (Not Dense) 3 = Erect (Dense) 4 4 = Other (Specify)\_Parallel Shape: 1 = Tapering 2 Strap 3 = Clavate Waxiness 1 = Absent (Glossy) 2 = Slightly Waxy 3 = WaxyLateral Kernels Overlap: 1 = None 2 = At Tip 3 = 1/4 - 1/2 of Head Rachis (Halr on Edge): · 1 = Lacking 2 = Few 3 = Covered 7. GLUME: 2 Length: 1 = 1/3 of Lemma 2 = 1/2 of Lemma 3 = More than 1/2 of Lemma 2 Hairs: 2 = Short 1 = None 3 = Long2 = Restricted to Middle Hair Covering: 1 = None 3 = Confined to Band 4 = Completely Covered 1 = Less than Equal to Length of Glumes 2 = Equal to Length of Glumes 3 = More than Equal to Length of Glumes Awn Surface: 1 = Smooth 2 = Semi-Smooth 3 = Rough 8, LEMMA: 5 Awn: 1 = Awnless 2 = Awnlets on Central Rows, Awnless on Lateral Rows 3 = Short on Central Rows, Awnlets on Lateral Rows 4 = Short (Less than Equal to Length of Spike) 5 = Long (Longer than Spike) 6 = Hooded Awn Surface: 1 = Awnless 2 = Smooth 3 = Semi-Smooth 4 = Rough 3 = Numerous 4 = 4 = Frequent . Teeth: 1 = Absent 2 = Few 3 = Sharkskin Hair: 1 = Absent 2 = Present Shape of Base: 1 = Depression 2 = Slight Crease 3 = Transverse Crease

1 = Short

1 = Few

2 = Long

2 = Many

Raachilla Hairs:

Hairs:

9. STIGMA:

10. SEED:						<b>"</b> 0	
2	Type: <b>1</b> = Na	ked	2 = Covered			# 2	00800311
2	Hairs on Ventral Furro	w:	1 = Absent	2 = Presen	nt ·		•
4	2 = Sh 3 = Mid (4)= Mid	I-Long (8.5 - I-Long to Lo	ong (7.5 – 9.0 mm) – 9.5 mm) ong (9.0 – 10.5 mm)				
[2]		ng (10.0 mm	n)				
	Wrinkling of Hull:	1 = Nake	ed 2 = Slightly W	Vrinkled 3	3 = Semi-Wrinkl	ed 4 = Wrinkled	
	Aleurone Color:	1 = Colo	rless (White or Yello	·	2 = Blue		
0 0	Percent Abortive			35	GMS. per 1000 \$	Seeds	
11 DISEASE	E: (0 = Not Tested, 1 = S	uscentible	2 = Resistant 3 = In	itermediate 4	1 - Tolerant)		
7	Septoria 3	Net Bloto		Spot Blotch	<del></del>	Powdery Mildew	
<u> </u>	oose Smut	Bacterial		Covered Si		False Loose Smut	
片	Stem Rust 0	Leaf Rus	片	Scab	3	Scald	·
					0	•	
^	ster Yellows Virus U	BSMV		BYDV	<u> </u>	Other (Specify)	
0 G	(0 = Not Tested, 1 = Subsection (0)  Francisco (0)	English C Cerial Le	= Resistant, 3 = Integral Aphid  af Beetle  0  A  0 E	ermediate, 4 Chinch Bug Other (Spe	0	Armyworm  O C O G	Other Specify)
	AL: (0 = Not Tested, 1 =	Susceptible					
14. INDICATE	WHICH VAREITY MO	ST CLOSEI	Y RESEMBLES TH	AT SUBMIT	TED:		
	CHARACTER		NAME OF VARIE	ETY		CHARACTER	NAME OF VARIETY
Plant Tillering	<b>j</b>	LEG	ACY		Seed Size		LEGACY
Leaf Size		LEG	ACY		Coleoptile E	longation	LEGACY
Leaf Color		LEG	ACY		Seedling Pig	mentation	LEGACY
Leaf Carriage		LEG	ACY				

#### REFERENCES:

The following publications may be used as a reference aid for the standardization of character descriptions and terms used in this form:

- 1. Wiebe, G.A., and D.A. Reid, 1961, Classifications of Barley Varieties Grown in the United States and Canada in 1958, Technical Bulletin No. 1224, U.S. Department of Agriculture.
- 2. Reid, D.A., and G.A. Wiebe, 1968, Barley: Origin, Botany, Culture, Winter Hardiness, Genetics, Utilization, Pests, Agriculture Handbook No. 338, U.S. Department of Agriculture, pp. 61-84.
- 3. Malting Barley Improvement Association, Milwaukee, Wisconsin, 1971, Barley Variety Dictionary.

COLOR: Nickerson's or any recognized color fan may be used to determine color of the described variety.

## **BOTANICAL DESCRIPTION OF CELEBRATION (6B01-2218)**

**6B01-2218** is a six-rowed, mid-season spring barley bred and developed by Busch Agricultural Resources, Incorporated, Ft. Collins, Colorado. It has excellent malting quality.

Juvenile growth habit is erect. Plant color at boot is green with an upright flag leaf. Head shape is parallel and midlax in density with a slightly nodding head type. Neck is straight with a cupped collar that forms a V-shape in the front. First rachis segment is slightly bent back and is long and narrow. Base of the first segment is a margin flange with no hairs on the margin. Rachis shape is plain with short hairs covering the margin edge. Glume length is one half the length of the kernel and glume hair is short and sparsely covering the outer surface of the glume. The glume awns are rough and more than the length of the glume. Lemma awns are semi-smooth, longer than the spike and persistent. Lemma teeth are frequent and sharkskin appears in the interveinal areas. Lemma hair is absent and the base is a depression showing a tendency to crease. Seed is covered, mid-long to long, finely wrinkled with a slight wax present. The aleurone is colorless. Palea tips are mid-sized. Rachilla length is one-fourth the length of the kernel with short hairs that get shorter at the tip. Ventral crease is open with crease hairs.

6B01-2218 is a Midwestern six-rowed variety well adapted to Minnesota, North Dakota, Idaho and Montana.

### **EXHIBIT D**

# #200800311

### **AGRONOMIC CHARACTERISTICS:**

### Yield Trials (2003-2006) §

Grain	Days to	Relative	Plant		Foliar		
Yield	Heading	Maturity	Height	Lodging	Disease	FHB	DON
(Bu/ac)	(Julian)	(1-9) †	(cm)	(1-9)††		(1-9)‡	ppm
121	88	37	85	48	22	24	32
95.2	176.9	4.4	86.9	2,9	3.7	4.3	4.02
91.6 **	177.6 **	5.4 **	90.8 **	2.8 ns	3.8 ns	3.8 ns	4.99 ns
85.9 **	176.7 ns	5.1**	94.4 **	3.3 *	4.49**	4.4 ns	5.74 **
	Yield (Bu/ac)  121  95.2  91.6 **	Yield Heading (Bu/ac) (Julian)  121 88  95.2 176.9  91.6 ** 177.6 **	Yield       Heading       Maturity         (Bu/ac)       (Julian)       (1-9) †         121       88       37         95.2       176.9       4.4         91.6 **       177.6 **       5.4 **	Yield         Heading         Maturity         Height           (Bu/ac)         (Julian)         (1-9) †         (cm)           121         88         37         85           95.2         176.9         4.4         86.9           91.6 **         177.6 **         5.4 **         90.8 **	Yield         Heading         Maturity         Height         Lodging           (Bu/ac)         (Julian)         (1-9) †         (cm)         (1-9)††           121         88         37         85         48           95.2         176.9         4.4         86.9         2.9           91.6 **         177.6 **         5.4 **         90.8 **         2.8 ns	Yield         Heading         Maturity         Height         Lodging         Disease           (Bu/ac)         (Julian)         (1-9) †         (cm)         (1-9)††         (1-9)‡           121         88         37         85         48         22           95.2         176.9         4.4         86.9         2.9         3.7           91.6 **         177.6 **         5.4 **         90.8 **         2.8 ns         3.8 ns	Yield         Heading         Maturity         Height         Lodging         Disease         FHB           (Bu/ac)         (Julian)         (1-9) †         (cm)         (1-9) †         (1-9) ‡           121         88         37         85         48         22         24           95.2         176.9         4.4         86.9         2.9         3.7         4.3           91.6 **         177.6 **         5.4 **         90.8 **         2.8 ns         3.8 ns           4 4 ns

<sup>§</sup> All fully paired data available in BARI Barley Research database system (10/10/06).

## **MALTING QUALITY CHARACTERISTICS:**

### Quality Tests (2003-2005) §

Barl ey	Malt	Plump	Fine	Wort		F-C	β-	Diasatic	Alpha-
Prote in	Protein	Kernels	Extract	Protein	S/T	Diff.	Glucan	Power	Amylase
(%)	(%)	(%)	(%)	(%)	(%)	(%)	ppm	(°L)	(20° DU)
66	52	66	57	56	56	17	52	57	57
13.1	12.8	88.2	79.8	5.9	46.8	0.9	88	193.9	74.4
12.6 **	12.6 ns	83.8 **	79.5 *	6.0 ns	48.7 *	1.0 ns	195 **	187.1 *	78.3 **
13.1 ns	13.2 *	86.9 *	79.0 **	5.5 **	42.6 **	1.5 **	205 **	180.6 **	49.8 **
	ey Prote in (%) 66 13.1 12.6 **	ey Prote Protein in (%) (%) 66 52  13.1 12.8 12.6 12.6 ns ** 13.1 13.2 *	ey  Prote Protein Kernels in  (%) (%) (%)  66 52 66  13.1 12.8 88.2  12.6 12.6 ns 83.8 **  **  13.1 13.2 * 86.9 *	ey  Prote in  (%)  (%)  (%)  (%)  (%)  (%)  (%)  (%	ey  Prote Protein Kernels Extract Protein in  (%) (%) (%) (%) (%) (%)  66 52 66 57 56  13.1 12.8 88.2 79.8 5.9  12.6 12.6 ns 83.8 ** 79.5 * 6.0 ns  **  13.1 13.2 * 86.9 * 79.0 ** 5.5 **	ey  Prote Protein Kernels Extract Protein S/T  (%) (%) (%) (%) (%) (%) (%)  66 52 66 57 56 56  13.1 12.8 88.2 79.8 5.9 46.8  12.6 12.6 ns 83.8 ** 79.5 * 6.0 ns 48.7 *  **  13.1 13.2 * 86.9 * 79.0 ** 5.5 ** 42.6 **	ey  Prote Protein Kernels Extract Protein S/T Diff.  (%) (%) (%) (%) (%) (%) (%) (%)  66 52 66 57 56 56 17  13.1 12.8 88.2 79.8 5.9 46.8 0.9  12.6 12.6 ns 83.8 ** 79.5 * 6.0 ns 48.7 * 1.0 ns  **  13.1 13.2 * 86.9 * 79.0 ** 5.5 ** 42.6 ** 1.5 **	ey  Prote protein Kernels Extract Protein S/T Diff. Glucan  (%) (%) (%) (%) (%) (%) (%) (%) ppm  66 52 66 57 56 56 17 52  13.1 12.8 88.2 79.8 5.9 46.8 0.9 88  12.6 12.6 ns 83.8 ** 79.5 * 6.0 ns 48.7 * 1.0 ns 195 **  **  13.1 13.2 * 86.9 * 79.0 ** 5.5 ** 42.6 ** 1.5 ** 205 **	ey         Protein in         Kernels         Extract         Protein         S/T         Diff.         Glucan Power           (%)         (%)         (%)         (%)         (%)         (%)         ppm         (°L)           66         52         66         57         56         56         17         52         57           13.1         12.8         88.2         79.8         5.9         46.8         0.9         88         193.9           12.6         12.6 ns         83.8 **         79.5 *         6.0 ns         48.7 *         1.0 ns         195 **         187.1 *           13.1         13.2 *         86.9 *         79.0 **         5.5 **         42.6 **         1.5 **         205 **         180.6

<sup>§</sup> All fully paired data available in BARI Barley Research database system (10/10/06).

<sup>\*, \*\*,</sup> significantly different from the experimental line at 0.05,< 0.01 levels of probability in paired t-test.

<sup>†</sup> Lodging of 1 = no lodging and 9 = severe lodging.

<sup>†</sup> Diseases of 1 = resistant and 9 = susceptible.

<sup>\*, \*\*,</sup> significantly different from the experimental line at 0.05, < 0.01 levels of probability in paired t-test

## Agronomic and quality abbreviation defined.

#200800311

Yield = The yield as a percent of B1202

Ht CM = The height of the plant in centimeters

Ldg 1-9 = The percent of lodging, 1=0%-10% and 9=90%-100% lodging

Mat = Is a rating of maturity. 1 = very early and 9 = very late

Test Wt. = Test Weight which measures bushel weight

Scald = The percent of the plant infected with scald.

Net Blotch = the percent of the plant infected with net blotch

% Plump = The percent of plump kernels

Malt Protein = The protein measurement of the malt

F. Grind = The measurement of extract from barley ground to a fine particle size.

C. Grind = The measurement of extract from barley ground to a course particle size.

F-C Diff = The difference between fine and the course grind.

Wort Visc. = The viscosity of the wort.

S/T = The soluble protein divided by the total protein.

Sol Protein = Soluble protein.

DP = Diastatic Power (enzyme measurement).

AA = Alpha Amylase (enzyme measurement).

Color = Measures clarity

Turb = Turbidity or followability.

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STATEMENT OF THE BASIS OF OWNERSHIP					
1.NAMEOFAPPLICANT(S) Busch Agricultural Resources, LLC	2. TEMPORARY DESIGNATION OR EXPERIMENTAL NUMBER				
,	6B01-2218	Celebration			
4. ADDRESS (Street and No., or R.F.D. No., City, State, and ZIP, and Country) 3515 Richards Lake Road Ft. Collins, Colorado 80524 USA	5. TELEPHONE (Include area code) (970) 221-5622	6. FAX (Include area code) (970) 472-2334			
et. Collins, Colorado 80324 USA	7. PVPO NUMBER				
	#200	800311			
8. Does the applicant own all rights to the variety? Mark an "X" in the	e appropriate block. <b>If no, please expla</b>	in. X YES NO			
9. Is the applicant (individual or company) a U.S. national or a U.S. b	ased company? If no, give name of c	ountry. X YES NO			
10. Is the applicant the original owner?	NO If no, please answer one	of the following:			
a. If the original rights to variety were owned by individual(s), is (	NO If no, give name of countr	y ·			
b. If the original rights to variety were owned by a company(ies),  YES  []	, is (are) the original owner(s) a U.S. ba				
11. Additional explanation on ownership (Trace ownership from origin	nal breeder to current owner. Use the re	everse for extra space if needed):			
PLEASE NOTE:					
Plant variety protection can only be afforded to the owners (not licens	ees) who meet the following criteria:				
<ol> <li>If the rights to the variety are owned by the original breeder, that penational of a country which affords similar protection to nationals of</li> </ol>	erson must be a U.S. national, national f the U.S. for the same genus and speci	of a UPOV member country, or es.			
<ol><li>If the rights to the variety are owned by the company which employ nationals of a UPOV member country, or owned by nationals of a c genus and species.</li></ol>	ved the original breeder(s), the company country which affords similar protection i	y must be U.S. based, owned by to nationals of the U.S. for the same			
3. If the applicant is an owner who is not the original owner, both the	original owner and the applicant must m	neet one of the above criteria.			
The original breeder/owner may be the individual or company who dir Act for definitions.	rected the final breeding. See Section 4	11(a)(2) of the Plant Variety Protection			
According to the Paperwork Reduction Act of 1995, an agency may not conduct or sponsor, control number. The valid OMB control number for this information collection is 0581-0055. including the time for reviewing the instructions, searching existing data sources, gathering a	The time required to complete this information collect	ation is estimated to average 0.1 hour per response			

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> U.S. DEPARTMENT OF AGRICULTURE AGRICULTURAL MARKETING SERVICE SCIENCE AND TECHNOLOGY **PLANT VARIETY PROTECTION OFFICE** BELTSVILLE, MD 20705

**EXHIBIT F** 

	DECLARATION REGARDING DEPOSIT				
NAME OF OWNER (S)	ADDRESS (Street and No. or RD No., City, State, and Zip Code and Country)	TEMPORARY OR EXPERIMENTAL DESIGNATION 6B01-2218			
Busch Agricultural	3515 Richards Lake Road				
Resources, LLC	Ft. Collins, Colorado 80524 USA	variety NAME Celebration			
name of owner representative (s) Dr. Blake Cooper	3515 Digharda Tako Dood	PVPO NUMBER #200800311			

I do hereby declare that during the life of the certificate a viable sample of propagating material of the subject variety will be deposited, and replenished as needed periodically, in a public repository in the United States in accordance with the regulations established by the Plant Variety Protection Office.